

## **SERVICES**

### **Electrical Engineering & Design**

Our multi-state Licensed Professional Engineers have over 20+ years of experience in engineering and design.

Feasibility / Pre-Design Services  
Existing Facilities Analysis  
Power Systems Studies / Analysis  
Low, Medium, & High Voltage System Design  
Emergency, UPS, and Standby Power Design  
Lighting & Control Systems Design  
Instrumentation and Automation Design  
Fire Alarm Design  
Data and Telecom Design  
Area Classification Analysis  
LEED and Energy Efficiency Design

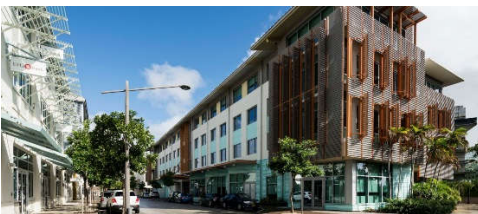
### **Professional Affiliations**

Florida Board of Engineers  
Louisiana Board of Engineers  
Mississippi Board of Engineers  
Nevada Board of Engineers  
Pennsylvania Board of Engineers  
Texas Board of Engineers  
West Virginia Board of Engineers  
Wyoming Board of Engineers  
NCEES Registered to Obtain License in All 50 States  
IEEE - Institute of Electrical and Electronics Engineers - Member  
PMP – Project Management Professionals

Encarn Engineering provides electrical engineering consulting services in the Architectural/Engineering (**AE**) field working on a variety of projects for private and public sectors in Health Care, Retail/Residential Mixed Use, Commercial Office, Tenant Build-out, Educational, Government Court Houses, Waste Water, Energy, and Light and Heavy Industrial. Some key projects include Energy Enhancement, Clean Air Technology, Power System Analysis Studies, LEED Certified Buildings, Interior Renovation Build-outs, and Construction/Commissioning Support Services.

Encarn Engineering is a certified minority-owned business (**MBE**) and small business (**SBE**) which is built on a wide arrange of experience with a proven track record of collaboration and shared successes. Our company has worked with a diverse group of clients throughout Florida and various other states with one primary goal; to truly understand the unique needs behind each project to confidently apply our collective expertise towards successful solutions.

From overcoming complexities and challenges of project budgets and schedules, Encarn Engineering combines a deep passion to strive for perfection with our highly qualified partners to consistently provide top tier results.



**West Indian Club Camana Bay, Grand Cayman.**  
500 Acres of Mixed Use Master Planned Community, Total of 18 Blocks of Commercial Office, Retail, Residential, Recreational, Educational, and Hospitality properties.

## **VARIOUS PROJECT EXPERIENCE**

**Camana Bay - Institutional, Cinema, Chiller Plant, etc., Block 8** – 172,000 SF of Commercial Office Space, Green Building Designed to the Standards of **LEED** Rating System, PV System, Cistern Water System, Building Information Modelling (**BIM**) using Navis Works. Design of the Power Distribution, Power/Lighting Design, and Fire Alarm Design.

**Blue Cross Blue Shield, Blue Cross Blue Shield Corporate Campus Facility, Jacksonville, FL** - \$162 Million Dollar, 772,000 SF of Corporate Office Campus Facility consisting of 4 Buildings, 500 Seat Conference Center, 400 Seat Cafeteria, with 2 Elevated Parking Structures. Design of the Power Distribution, Power/Lighting Design, and Fire Alarm Design.



Blue Cross Blue Shield Florida Campus consisted of the design of the Power Distribution, Power/Lighting Design, and Fire Alarm Design.



Long Center for the Performing Arts included MEP engineering with coordinating with specialist contractors such as the lighting specialists and audio and visual specialists.



MicroEssentials Project included the preparation of a front-end engineering package and detailed design which included modifications to an existing heavy industrial chemical facility which included process modifications and a new warehouse for product storage.

## VARIOUS PROJECT EXPERIENCE (CON'T)

**G Leaf – Saxton Facility Expansion – Phase 2, Saxton, PA** – 180,000 SF State-of-the-Art indoor grow facility located in Saxton, PA. The facility included 24 Flowering rooms, Vegetation, Clone, and Mother rooms, Dry rooms, Irrigation/Fertigation rooms, Cafeteria, Storage Vaults, and Offices. Grow operations included 8400 led lights, tiered racking systems, advanced automation control panels in each rooms to monitor environmentals, control lighting and dehumidification, and injection of fertilizer nutrients. Led the A/E team in the design of the Power Distribution, Power/Lighting Design, Fire Alarm Design, Security System design, IT Network design, Controls and Automation, HVAC Design, and Architectural/Structural design.

**University of Miami, University of Miami Clinical Research Building, Miami, FL**  
University of Miami Clinical Research Building – Miami, FL - 15 Story, \$74 Million Dollar, 336,300 SF of Instructional, Office, Retail, and Research Laboratories. Design of the Power Distribution, Power/Lighting Design, and Fire Alarm Design.

**Long Center, Long Center for the Performing Arts, Austin, TX**  
\$77 Million Dollar, 148,000 SF, 2,400 Seat Theater, and a Black Box Studio Theater. Design of the Power Distribution, Power/Lighting Design, and Fire Alarm Design.

**Cooper City High School Expansion, Cooper City, FL**  
3 Story, 36 classroom building in a 48,534 square foot envelope. Design of the Power Distribution Design, Lighting and Controls Design, and Fire Alarm Design.

**West Kendall Baptist Hospital, West Kendall Baptist Hospital, Miami, FL**  
5 Story, 318,040 SF, \$66 Million Dollar, 80 Bed Satellite Hospital. Duties consisted of assisting the lead Electrical Engineer in the design of the Nurses Call and Systems Design Only.

**Mosaic, New Wales MicroEssentials Project, Mulberry, FL**  
Front-end engineering package and detailed design to modify an existing granulation plant to produce a patented MicroEssentials product. Project details included 15kV and 5kV overhead lines, 7.5MVA and 2.5MVA unit substations, arc-rated medium and low voltage switchgear, and intelligent arc-rated medium and low voltage motor control centers. Duties consisted of preparation of capital cost estimate, engineering and construction schedules, and management of production of construction installation package. In addition, assisted in Construction Management and Commissioning services. Project Total Installed Cost (TIC) was approximately \$225 MIL.

**Mosaic, Energy Enhancement Cogeneration Project, Mulberry, Florida**  
Responsible as the Lead Engineer in the preparation of a FEED package for the installation of a new Steam Turbine Generator (50MW), 13.8kV-69kV 50MW Main Substation, and three Heat Recovery Systems (HRS). Project consisted of preparation of capital cost and man-hour estimates, one-line diagrams, generator controls, relay protection, specifications and layout of TG Auxiliaries and Step-up Substation (50MVA, 13.8kV - 69kV Transformer).

**TECO, Arc Flash Study, Tampa, Florida**  
Responsible for studying the Short Circuit Analysis, Protective Device Coordination, and Arc Flash Hazards for various utility power plants. Efforts included field data collection of existing electrical equipment, power plant modelling using ETAP software, processing the various studies and determination of the proposed mitigation measures.